
ARTICLES

Geographical Structure and Trade Balance of European Foreign Trade from 1800 to 1970

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INTRODUCTION.

This study is a follow-up to an article published in an earlier issue of this journal which dealt with the results of our calculations on the evolution of the value and volume of European foreign trade over ten-year periods.¹ To our knowledge, there are as yet no available calculations on the geographical structure of European trade before 1900.²

In this study, the data covering the 1800-1910 period are a result of our calculations on the basis of the statistics of the individual countries, while for data pertaining to 1910 onwards we used the sources mentioned in footnote 2.³ At the end of this article, the

¹ P. BAIROCH, *European Foreign Trade in the XIX Century: The Development of the Value and Volume of Exports (Preliminary Results)*, in «The Journal of European Economic History», Vol. 2, No. 1, Spring 1973, pp. 5-36.

² For the contemporary period (after 1948) our basic sources are the United Nations publications (especially the «Yearbook of International Trade Statistics», the June issue of the «Monthly Bulletin of Statistics» and «Handbook of International Trade and Development Statistics») and «Direction of Trade», a publication of the International Monetary Fund. For the inter World War period, the basic source is the League of Nations study entitled: «Le Réseau du Commerce Mondial», Geneva 1942, which supplies data for 1928, 1935 and 1938. This data may be completed with data for 1913 from I. SVENNILSON, *Growth and Stagnation in the European Economy* (United Nations, Geneva 1954); but while it gives, in particular, the distribution of European trade by country of origin and destination, its data on the geographical distribution of extra-European trade lack detail. Finally, the United Nations made calculations for the 1910-1913 period but, to our knowledge, the results were never published (except in the form of a provisional stencilled document).

³ Note that the data have been homogenized to enable comparison with earlier data (see item F2 in the methodological appendix).

reader will find an appendix dealing with the various methodological problems we encountered. We will restrict ourselves at this point to making the traditional reservation as to the margin of error in the data presented here. Where there is a greater margin of error, the data are given within parentheses.

This article is divided into three main parts. The first and most important deals with the presentation and analysis of the geographical structure of exports. The second, shorter, since the data are more unreliable (see methodological appendix), deals with the geographical structure of imports; the third part analyses the evolution of the trade balance. In addition to these three parts (A, B, and C) there are parts D providing a brief summary of the article, E a statistical appendix, and F the methodological appendix.

For certain periods, the total export figures for Europe given in this article are not identical with those given in the previous article. Further research has caused us to revise certain figures and, as a result, the figures presented here are to be considered as more precise. Furthermore, we have had to revise the export price indices (because of the availability of new series) and thus data expressed in volume have also been modified.⁴

⁴ Here are the two revised series of figures for the value of European exports (*in millions of dollars*):

	Current values	Constant values 1899-1901
1800	(670)	(203)
1830	(645)	(411)
1840	870	625
1850	1,140	900
1860	2,105	1,520
1870	3,295	2,450
1880	4,050	3,305
1890	4,630	4,395
1900	5,485	5,485
1910	8,650	8,175
1913	10,550	9,500

Also note that the definition of Europe used in this study is the same as that used in the previous article, i.e. Europe, including Russia (European and Asia Russia), but excluding Turkey (as defined in 1913). For the definition of other continents and regions, consults part F3 of the methodological appendix.

In several tables we continue the series until 1972.⁵ Post-1910 data have been adjusted to enable comparison between the geographical distribution of pre- and post-1910 (see item F2 in the methodological appendix). In spite of this, the analysis of post 1910 data must take into account territorial and political changes in Europe, brought about, directly or indirectly, by the two World Wars. However, distortions caused by these changes are, in the final analysis, relatively slight, especially if we compare the post World War II situation with that prevailing in the pre World War I period. The results of our calculations on these distortions are to be found in the methodological appendix (see item F4 of the said appendix and Table A). In any case, since the part dealing with the 19th century is this article's main contribution, our analysis will be centered on this period and will deal more summarily with the 1928-1972 period (so as not to lengthen the text unduly). Finally, in this article, except where otherwise indicated, value will be expressed in current dollars.

A) GEOGRAPHICAL EXPORT STRUCTURE.

This part will deal, first and foremost, with the presentation and analysis of data pertaining to the evolution of the geographical export structure for the whole of Europe. In view of the vast differences existing among the countries, we will then proceed to a brief examination of the data pertaining to the export structure of continental Europe, as well as that of some major countries.

A1) *Geographical export structure for the whole of Europe.*

Table 1 shows the results of our calculations and estimates on the geographical structure of European exports, from 1800 to 1910. These data make it possible to reach certain conclusions which have considerable economic implications.

⁵ The choice of 1972 is justified by the fact this was the last year that escaped the effects of the high commodity price rise (and the problems of inflation in general). Note that in certain cases the evolution in 1973 and even 1974 is taken into account.

TABLE I

GEOGRAPHICAL DESTINATION OF EUROPEAN EXPORTS 1800-1910
(in millions of current dollars and percentages; three years annual average)

	Europe	North America	South America	Asia	Africa	Oceania	Total
<i>In value:</i>							
1800	(495)	(80)	(50)	(35)	(10)	(1)	(670)
1830	465	76	50	41	11	2	645
1840	597	85	85	75	21	8	871
1850	772	139	101	91	30	10	1,143
1860	1,421	191	162	210	67	53	2,104
1870	2,326	303	224	315	68	57	3,293
1880	2,925	339	243	350	101	92	4,051
1890	3,216	391	332	419	137	131	4,626
1900	3,896	370	292	536	242	147	5,483
1910	5,866	657	648	847	415	212	8,646
<i>In % of total:</i>							
1800	(74.0)	(12.0)	(7.5)	(4.0)	(1.5)	(0.1)	(100.0)
1830	72.1	11.9	7.8	6.3	1.6	0.3	100.0
1840	68.5	9.8	9.8	8.6	2.3	0.9	100.0
1850	67.6	12.2	8.9	7.9	2.6	0.8	100.0
1860	67.5	9.1	7.7	10.0	3.2	2.5	100.0
1870	70.6	9.2	6.8	9.6	2.1	1.7	100.0
1880	72.2	8.4	6.0	8.6	2.5	2.3	100.0
1890	69.5	8.5	7.2	9.1	3.0	2.8	100.0
1900	71.1	6.7	5.3	9.8	4.4	2.7	100.0
1910	67.8	7.6	7.5	9.8	4.8	2.4	100.0

Sources: Our calculations; see text and methodological appendix.

Note: The degree of rounding off of the figures does not imply a corresponding low margin of error. The percentages have been calculated from unrounded figures.

Although there is no doubt that the geographical export structure for Europe underwent certain modifications over these 110 years, we can note, nevertheless, a relatively high level of general stability. Discounting the appearance of sales to Oceania — which were practically non-existent at the beginning of the 19th century — it can be seen that the proportional distribution of the various continents was not unduly disturbed over a hundred years. Similarly, it would be difficult to speak of a general trend that would be valid for the whole period because the geographical export structure reflects relatively divergent economic movements. This is why we propose to analyse the trends, on the one hand trying to divide the 110 years in question into more or less homo-

geneous phases and, on the other hand analysing trade with each region separately.

It would seem that the influence of the customs policies dominant in Europe can be clearly discerned in these phases. Europe's free-trade experience, which really started around 1860 and lasted until 1880-1890, represented a break in a trend characterized by a geographical diversification of trade. Because of this three distinct phases can be observed.

The first, lasting from the beginning of the century to 1860, was characterized by a growing geographical diversification of European sales and, in particular, increased sales to Asia and Africa. These two continents together absorbed around 6% of European exports at the beginning of the century and 13% by 1860. Sales to Latin America — for reasons to be discussed further on — did not follow this trend. Note that data for 1800 entails a greater margin of error than later figures. Note also that the stagnation in the value of trade between 1800 and 1830 in fact conceals a strong increase in volume, since between 1800 and 1830 export prices dropped by about 50%.⁶ Furthermore, because of the wars, the situation in 1800 was relatively atypical. This is the case especially for trade with North America which at that time reached exceptional heights.⁷ Indeed 1790 data are more representative of the situation at the beginning of the 19th century. We can therefore estimate, on the basis of data from 1800 and the evolution of the exports of the major countries (Great Britain, France) and of the trade of large regions or partner countries (United States, India, Latin America), that, around 1790, the geographical distribution of European exports was approximately as follows: Europe, 76%; North America, 10%; South America,

⁶ See our previous article in Volume 2 of this journal. The following is the approximate evolution of the price index of European exports as we calculate it (basis 1899/1901=100; three-year annual averages except for 1913):

1800	312	1860	141	1900	100
1830	151	1870	132	1910	105
1840	137	1880	119	1913	111
1850	124	1890	104		

⁷ Refer to D. C. NORTH, *The Economic Growth of the United States 1790-1860*, Englewood 1961.

8%; Asia, 5% and Africa, 1%. This 1790 structure would also be representative to a certain extent of that of the second half of the 18th century in general.

The second phase was therefore one of free trade which naturally led to a more rapid increase in inter-European trade. As a result, the relative share of this trade around 1880 was back at the level of the 1830's, i.e. 72%, after having probably dropped to 67% just before 1860. On the other hand, there was a drop in the relative share of sales to the rest of the world. However, this was not, of course, an absolute decrease (see Table 1).

The third phase, which probably started around 1884-87 and which, in fact, lasted until 1953-55 (see Table 2), was characterized by a rapid geographical diversification of exports, in particular towards the Third World countries and mainly because of the

TABLE 2

GEOGRAPHICAL DESTINATION OF EUROPEAN EXPORTS 1800-1972
(in percentages of current value of total exports)

	Europe	North America	South America	Asia	Africa	Oceania
1800	(74.0)	(12.0)	(7.5)	(4.0)	(1.5)	(0.1)
1830	72.1	11.9	7.8	6.3	1.6	0.3
1860	67.5	9.1	7.7	10.0	3.2	2.5
1890	69.5	8.5	7.2	9.1	3.0	2.8
1910	67.8	7.6	7.5	9.8	4.8	2.4
1928	65.5	8.0	6.6	10.4	6.7	2.8
1938	64.3	6.4	7.1	10.0	9.1	3.2
1953	60.7	7.2	4.7	13.4	10.8	3.2
1960	65.1	8.0	5.9	10.3	8.3	2.4
1970	74.0	7.8	4.4	7.0	5.7	1.2
1972	75.0	8.1	3.6	7.2	5.1	1.0

Sources: 1800-1910 our calculations; see text and methodological appendix.

1928 and 1938: derived from « Le réseau du commerce mondial », *op. cit.*, annexe III.

1953: derived from « Handbook of International Trade Statistics », UNCTAD (mimeo), Geneva 1964, and national statistics.

1960: derived from 1972, « Handbook of International Trade and Development Statistics », United Nations, New York 1972; and « Yearbook of International Trade Statistics, 1961 », United Nations, New York 1963.

1970 and 1972: derived from « Monthly Bulletin of Statistics », United Nations, June 1973 and June 1974; and « Direction of Trade, annual 1968-1972 », International Monetary Fund, Washington.

Note: For pre-1928 data, the degree of rounding off of the figures does not imply a corresponding low margin of error. The percentages have been calculated from unrounded figures.

increase in sales to Africa where colonization effectively began after 1885.⁸ This trend was particularly marked from 1900 to 1913 and it does not seem that the improvement in statistics — which took place in most countries during those years (see methodological appendix) — gave any particular slant to the data. Those years were characterized by an increase in Third World trade. Thus, according to our calculations, the value of the exports of this region increased by over 130% between 1900 and 1913⁹ as compared with 92% for European exports.

We will now proceed to the analysis of the evolution of exports to the various regions, but first, we must stress the predominant place occupied by inter-European trade which, during the 19th century, never dropped to less than two-thirds of total exports. The two troughs as far as this is concerned were practically a century apart. The first occurred around 1855-59, when the share of trade was probably about 67% and the second around 1950, when this share was about 60%. However, changes in this area have taken place much more rapidly over the past 30 years¹⁰ than during the previous 150 years. The trends have undergone a complete and rapid reversal for, as of 1970 and mainly as a result of the creation of the Common Market, the proportion of inter-European trade became once more what it had been at the beginning of the 19th century (see Table 2). Furthermore, in 1972, the last year before the effects of the high commodity price rise really made themselves felt, the share of inter-European trade even reached a level close to that of the second half of the 18th century. However, as we will see further on, it would be highly unrealistic to make such long-term comparisons.

Let us now examine trade with the other continents: first trade with the so-called developed regions: North American and Oceania and then trade with the so-called Third World regions.

⁸ See H. BRUNSWIG, *Le Partage de l'Afrique Noire*, Paris 1971; C. COQUERY-VIDROVITCH and H. MONIOT, *L'Afrique Noire de 1800 à nos jours*, Paris 1974; R. CORNEVIN, *Histoire de l'Afrique*, book II *Du tournant du XVI^e au tournant du XX^e siècle*, Paris 1966; H. DESCHAMPS (directed by), *Histoire Générale de l'Afrique Noire*, book II *De 1800 à nos jours*, Paris 1971.

⁹ P. BAIROCH, *Commerce extérieur du Tiers-Monde, 1800-1972*; to be published.

¹⁰ A reminder that post 1910 data have been given in order to enable comparison with 19th century data.

The most important characteristic of exports to North America was a relatively steep, but irregular, decline between 1850 and 1900, in spite of a sharp rise in imports from this region, as we will see later on. The relative regression of Europe's exports to this region can be explained by the protectionist policies of the United States¹¹ and of Canada (from 1879 onwards).¹² This policy led to a stagnation of imports of European manufactured goods and manufactured goods in general, especially after the War of Secession. Thus total imports of finished manufactured goods of the United States which had increased from \$ 31 million in 1820 to \$ 172 million in 1858-60, totalled only \$ 193 million for 1899-1901.¹³

Until 1953, Oceania absorbed a growing part of European exports. This portion increased sharply between 1850 and 1860 mainly as a result of the discovery of gold in Australia which triggered off an increase in emigration and in the demand for European products.¹⁴

Now we will proceed to the analysis of European exports to the Third World regions. We will start with Latin America. Exports to this sub-continent very clearly suffered until the 1880's from the slow increase in its import possibilities, because of the competition of beet sugar in Europe. Afterwards, exports from the temperate zones (especially Argentina) enabled the capacity of absorption of

¹¹ Just as in the second half of the 19th century there was a widespread myth of an England that had always been liberal as far as foreign trade was concerned (and a developed nation because of its liberalism), today there exists that of the ever-liberal United States, while, in fact, United States liberalism in foreign trade dates no further back than post World War II. According to the calculations of the League of Nations, United States customs duty on manufactured goods around 1913 was 44% as compared with the French 20% and German 13%. In 1925 these figures were respectively 37%, 21% and 20%. (*Tariff Level Indices. International Economic Conference, Geneva, May 1927, League of Nations, Geneva 1927*).

¹² In 1879 a new, clearly more protectionist customs tariff came into effect and is part of what is termed « national policy ». This policy was aimed at promoting the industrialization of Canada. (For the Customs History of Canada, see O. J. McDIARMID, *Commercial Policy in the Canadian Economy*, Cambridge, Mass. 1946).

¹³ Derived from *Historical Statistics of the United States. Colonial Times to 1957*, Washington 1960, pp. 544-545.

¹⁴ The population of Australia (excluding the pure aborigines) rose from 400,000 inhabitants in 1850 to 1,150,000 in 1860, representing an annual average of 11%, the highest rate ever recorded in any European-populated country (and probably in any country with at least 400,000 inhabitants).

this region to pick up considerably. We will examine this problem in greater detail in section B which deals with the import structure.

The de-industrialization of Asia and of India in particular, was reflected in the rise in European sales to this continent. Asia, in 1800, absorbed around 4% of European exports and 10% around 1860. In terms of volume, European exports to this continent (mainly composed, after 1810, of manufactured goods) can be estimated to have increased 21-fold between 1800 and 1870.¹⁵ Perhaps the development of sales of British manufactured textiles to India is more significant. Whereas before the abolition of the monopoly of the East India Company (1813), cotton cloth sales to India were practically non-existent, these reached 13 million yards in 1819-21, 51 million in 1829-31, 995 million in 1869-71, and 1413 million in 1879-80.¹⁶ The highest figure was reached around 1887 with over 2000 million yards, after which it levelled off. The same type of development, though less pronounced, could be observed in China from 1842 onwards and in the rest of Asia. However, since from the 1860's-80's, the substitution of imports for local production was practically complete, sales did not grow as rapidly. On the other hand, a reindustrialization process can be observed after 1870 in particular. Whereas around 1860, there were practically no cotton spindles in Asia, around 1890, there were some 3.2 million (0.3 million of which were in Japan) and in 1913 there were some 9.2 million (2.3 million of which were in Japan), i.e. 6.4% of the world total.¹⁷ As a result, and, in spite of sales generated by the setting up of railway lines, exports to Asia stopped increasing at a faster rate than total European exports.

In the long run, exports to Africa showed the strongest tendency of all to grow — from some 1.5% of total exports around

¹⁵ Using the total export price index for Europe. For manufactured goods only, the drop in price was probably greater, but we can also assume that the prices of the manufactured goods exported to Asia were more easily maintained than the prices of goods for the European or North American markets where competition was livelier.

¹⁶ Derived from M. DESAI, *Demand for Cotton Textiles in Nineteenth Century India*, in «The Indian Economic and Social History Review», Vol. 8, No. 4, December 1971, pp. 337-361.

¹⁷ Our estimations as derived from various sources.

1800, to almost 5% just before World War I and nearly 9% just before World War II. In fact, at that time, Africa, along with Asia, was the main outlet (outside Europe) for European exports (see Table 2). As regards the 19th century, we must note the very marked acceleration of sales to this region after 1880-90, during which period the colonization of black Africa really started. Black Africa, which around 1890, accounted for some 15-16% of the total exports of under-developed Africa (i.e. excluding South Africa), supplied 27% in 1900, 34% in 1913, 50% in 1938, 65% in 1953 and 58% in 1972.¹⁸

TABLE 3
EUROPEAN EXPORTS BY ECONOMIC REGIONS 1800-1972
(in percentages of total exports)

	Developed countries			Third World countries
	Europe	Others	Total	
1800	(74.0)	(12.0)	(86.0)	(14.0)
1830	72.1	12.2	84.3	15.7
1840	68.5	10.9	79.4	18.3
1850	67.6	13.2	80.8	19.2
1860	67.5	12.1	79.7	20.3
1870	70.6	11.6	82.2	17.7
1880	72.2	12.1	84.3	15.7
1890	69.5	12.7	82.3	17.7
1900	71.1	11.2	82.3	17.7
1910	67.8	11.5	79.3	20.7
1928	65.5	13.3	78.2	21.1
1938	64.3	13.0	77.3	22.7
1953	60.7	12.6	73.3	26.7
1960	65.1	12.4	77.5	22.5
1970	74.0	11.5	85.4	14.6
1972	75.0	11.1	86.1	13.9

Sources: See tables 1 and 2 and national statistics of Japan and South Africa.

Note: For pre-1928 data, the degree of rounding off of the figures does not imply a corresponding low margin of error.

Table 3 shows the proportional distribution of European exports according to the major economic regions. The high level of stability of exports to developed regions other than Europe (North America, Oceania, Japan and South Africa) is to be noted. These

¹⁸ P. BAIROCH, *Le commerce extérieur du Tiers-Monde, 1800-1872*, to be published. (The drop in relative importance in 1972 is due to the considerable increase in Libyan petroleum sales. These date back to 1961).

exports represent an average 12.1% of total exports, the peak being 13.5% around 1928 and the lowest figure 10.9 around 1840 (the coefficient of variation for the 16 periods being 6%). Furthermore, for most of the periods the variations in the relative volume of exports to these regions were inverse to those in inter-regional European trade. Consequently, total exports to the developed regions remained very stable. Including the post World War II period, the share of developed countries in European exports fluctuated only slightly between 1800 and 1972 (unweighted average: 81.2%; maximum: 86.1%; minimum: 77.3%; coefficient of variation for the 16 periods being 4.5%). Aside from this stability of the outlets in the developed regions, the great relative importance of these outlets must be stressed since, as we have just seen, these regions absorbed an average of 82% of European exports. Furthermore, as we shall see further on, this share alone is even larger for continental Europe: i.e. 90%. The dominance of these outlets implied, in turn, that the Third World offered relatively limited outlets.

Four distinct phases can be distinguished in the development of European exports to the Third World between 1800 and 1972. The first, which started before 1800¹⁹ and lasted until 1860, is characterized by the Third World's relatively rapid rise in importance. This region, which probably absorbed some 13% of European sales before 1800, was absorbing over 20% by 1860. As we saw previously, the main cause of this was the effective and growing economic colonization of Asia. During the second phase, which lasted from 1860 to 1880, there was a fall-back in the relative volume of sales to the Third World. This evolution can be attributed to the intensification of inter-European trade because of the free-trade policy and the saturation of certain Third World markets. The third phase, which lasted from 1880 to 1952-53, was characterized by a rise in the relative volume of exports to this region.

¹⁹ Except for the beginning of the 16th century, when the establishment of a sea link between Asia and Europe and the discovery and colonization of America caused trade with these regions to take a leap forward, it can be considered that, from 1760/70, this trend was accelerated mainly because of the beginning of the colonization of India and the increase in English demand for tropical products as a result of the industrial revolution.

This was very moderate until World War II but the immediate post-war period was characterized by a very high level of trade due to the high price of the tropical products and commodities exported by the Third World.²⁰ During the fourth phase, which started around 1952-53 and most likely ended in 1972,²¹ the relative importance of the Third World fell rapidly. From 25% of total exports in 1953, the Third World's share dropped to 21% in 1960, 15% in 1970 and to 14% in 1972 — i.e. a level similar to that of the mid-18th century. This can be explained by the intensification of trade pursuant to the creation of European customs communities which brought about a very rapid increase in inter-European trade.²²

The observation of the relatively restricted role played, in general, by the Third World, leads one to wonder why there is a tendency to overestimate this role in so many theoretical analyses. In the light of the results of this study's calculations, two objective reasons can be found.

The first is connected to the fact that the most important theoretical analyses in this field were made at historic moments when the relative share of outlets provided by the Third World markets was rapidly growing. The analyses alluded to are those of Marx in the 1840-1860 period, Hobson, Lenin and Luxembourg between 1895 and 1913 and finally, that of the period of newly acquired political independence in Asia and Africa between 1947-60. Moreover, it was during these years that the relative share of the Third World in the outlets of the developed countries reached its historical peak (at least until now). The second reason would be that Marx's analysis, as well as those of our contemporaries, are mostly based on the position of the dominant economy of the time, and

²⁰ For price levels in this period, see P. BAIROCH, *The Economic Development of the Third World since 1900*, chapter 6 (The Terms of Trade), section A (1876/80-1913), Methuen, London 1975.

²¹ Thus for Western Europe (i.e. Europe as defined in our study: excluding the following countries: Albania, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Rumania and USSR) the relative share of exports to the Third World (market economy countries), which had fallen from 22.2% in 1960 to 13.7% in 1970 and 13.1% in 1972 was 13% in 1973.

²² Thus, for example, for the Common Market (as defined pre 1972): internal trade increased by 15% per annum between 1958 and 1973 while world trade only increased by 9.5% annually during the same period.

in both cases, the position of the dominant economy is atypical precisely because it was the dominant economy. Whereas, around 1850, the Third World absorbed 19% of the total exports of the whole of Europe (see Table 3), for continental Europe this proportion was only 9%, but the figure for the United Kingdom was 34%. In the early 1950's, while the Third World absorbed 29% of Western European²³ sales, it absorbed 40% of United States' sales.

However, it is very important to note that, in each case, the dominant economy had large Third World outlets, but this fact should be correctly analysed. In the first case, there is sometimes the temptation to use this to explain the fact that England was the cradle of the industrial revolution and in the second case, to credit this exploitation of the Third World with a great part of the wealth of the United States. However, the truth is not quite so clear cut.

As regards England, it seems practically certain that the industrial revolution reached quite an advanced stage in England before seeking foreign outlets²⁴ and, *a fortiori*, outlets in the Third World. It should not be forgotten that it was only after 1813 that England started to export textiles to India, that is, at a time when it was already considered a developed country. Thus, for example, despite the fact that agricultural imports satisfied less than 2% of total consumption, only 35% of the active population was occupied in the agricultural sector. This percentage was reached in continental Europe only around 1960 (and only around 1905 in the United States). Around 1813, pig-iron production per capita in the United Kingdom was around 17 kgs (37.4 lbs). This figure was matched by continental Europe only around 1875, and the production capacity per capita in the British cotton industry, around 1813, was matched by continental Europe only around 1890.²⁵ As for the United States, we must note, first and foremost, that, because

²³ See geographical definition of Western Europe above.

²⁴ See P. BAIROCH, *Commerce international et genèse de la révolution industrielle anglaise*, in « Annales E.S.C. », No. 2 March-April 1973, pp. 541-571.

²⁵ Data derived from our studies: *Révolution industrielle et sous développement*, Paris 1963 (4th edition: Mouton 1974), and *Commerce extérieur et développement économique de l'Europe au XIX^e siècle*, to be published.

of their very low export rate, the fact that 40% of their sales went to the Third World in fact means that these sales represented only some 1.6-1.8% of the gross national product. Furthermore during the period in which the United States became the developed country with the largest overall gross national product and the highest product per capita level (i.e. 1875-85),²⁶ the Third World only absorbed 9% of total United States exports, i.e. 0.5% of the gross product.²⁷ Even around 1913, at a time when the GNP per capita level of the United States was already 50% higher than that of the United Kingdom (then still first in Europe) and the total GNP was larger than that of Germany (then second largest in the world from that point of view) by about 160%, exports to the Third World represented 18% of total exports and 1.1% of the gross national product.

Therefore, in the final analysis, the strength and level of economic development can be only marginally explained by the outlets provided by the Third World. However, once this level of sustained development is reached, the effects of economic, technological and political dominance enable an enlargement of Third World outlets. Once this is attained, there remains the question of whether the existence of markets where competition plays a smaller role is a positive factor or a negative one as far as the economic process of development is concerned. The United Kingdom example would tend to prove that it is a negative factor, but a much more detailed analysis would be required and this would be quite out of context with this study. Two comments are, however, in order here. The first has to do with the fact that because of the increase in the export ratio of the European economies during the 19th century, the part of production exported to the Third World grew more rapidly than the share of exports to this region.²⁸ How-

²⁶ See P. BAIROCH, *Europe's Gross National Product since 1830 (evolution of volume and value)*, to be published.

²⁷ Derived from *Historical Statistics of the United States. Colonial Times to 1957*, Washington 1960, pp. 542 and 550-551.

²⁸ On the basis of our calculations, it can be estimated that between 1830 and 1910 the export ratio, i.e. the share of exports in the gross national product (at market prices) rose from 4% to 13%. Therefore, European exports to the Third World in that period rose from 0.7 to 2.7% of the European gross national product.

Note that, although around 1953, an historic peak was reached in this area for Western

ever, as we will see in section B, the Third World in the 19th century was slightly more important as a supplier for Europe than as an outlet.

A2) Geographical structure of exports of European regions and countries.

The peculiar structure of United Kingdom exports, being very much directed to extra-European countries, along with the volume of the country's sales, strongly affected the export structure of the whole of Europe. Because of this, the sales distribution per continent, for Western Europe alone, is quite different from the one analysed. These differences are shown in Table 4.

The geographical structure of Western Europe's exports is characterized by a high proportion of inter-European trade. Between 1830 and 1900 Europe's share in these exports remained higher than 81% (an average of 82.6%). Only from 1890-1900 was there any real diversification in sales which, at that time, was much more rapid than that of the United Kingdom (see Table 4 and also Tables 16 and 18 in the statistical appendix). This diversification was due mainly to an increase in exports to Third World countries. From 1880 to 1938, exports from continental Europe to Latin America, Africa and Asia rose from 9.1% of total exports to 21.6%. In absolute terms, this represents an increase from \$ 274 million to \$ 1799 million, i.e. an increase of 560% or 3.3% per annum. In terms of volume, the annual increase must have been around 3.5-3.7%.²⁹ However, in spite of this rapid diversification — which continued after 1938 — the geographical export structure of continental Europe is still less diversified than that of

Europe with a figure of 3.8%, this figure dropped to under 2.5% in 1972. For more on this country by country percentage, see P. BAIROCH, *The Economic Development of the Third World since 1900*, London 1975 (Chapter 5: Foreign Trade).

²⁹ Based on export price indices (exports to the rest of the world) for manufactured articles in industrial Europe and the United Kingdom, as calculated by C. P. KINDLEBERGER, *The Terms of Trade. A European Case Study*, New York 1956; and *Industrial Europe's Terms of Trade on Current Account 1870-1953*, in «The Economic Journal», March 1955, pp. 19-35.

TABLE 4

COMPARISON OF THE GEOGRAPHICAL DESTINATION OF EXPORTS
OF EUROPE, THE UNITED KINGDOM AND CONTINENTAL EUROPE, 1830-1970
(in percentages of total exports, three years annual average; except 1938)

	Europe	North America	South America	Asia	Africa	Oceania
1830:						
Europe	72.1	11.9	7.8	6.3	1.6	0.3
United Kingdom	46.7	25.5	11.5	12.8	2.5	1.0
Continental Europe	82.0	6.6	6.3	3.8	1.3	—
1860:						
Europe	67.5	9.1	7.7	10.0	3.2	2.5
United Kingdom	34.3	16.6	12.0	25.7	3.2	8.2
Continental Europe	82.0	5.8	5.8	3.1	3.2	0.1
1880:						
Europe	72.2	8.4	6.0	8.6	2.5	2.3
United Kingdom	35.6	15.9	10.2	25.4	4.3	8.4
Continental Europe	85.0	5.8	4.5	2.8	1.8	0.1
1910:						
Europe	67.9	7.6	7.5	9.8	4.8	2.4
United Kingdom	35.2	11.6	12.6	24.5	7.4	8.6
Continental Europe	78.0	6.4	5.9	5.2	3.9	0.5
1938:						
Europe	64.3	6.4	7.1	10.0	9.1	3.2
United Kingdom *	35.2	9.3	9.7	17.4	15.9	12.5
Continental Europe	72.2	5.5	6.3	8.0	7.3	0.6
1970:						
Europe	74.0	7.8	4.4	7.0	5.7	1.2
United Kingdom *	49.4	15.4	5.5	13.7	10.2	5.9
Continental Europe	77.1	6.8	4.2	6.1	5.2	0.6

* United Kingdom only, not including Ireland.

Sources: Our calculations; see text and methodological appendix.

Note: For pre 1938 data, the degree of rounding off of the figures does not imply a corresponding low margin of error.

the United Kingdom, which goes to show the importance of established structures. In 1970 only 49% of United Kingdom exports went to the rest of Europe, whereas for continental Europe this figure was 77%.

However, even for the 19th century, the countries of continental Europe cannot be considered as forming a homogeneous block from the point of view of the geographical distribution of exports. Table 5 enables the differences in this area at the end of the 19th century to be clearly seen. Table 6 (see below) will show the changes which occurred for the major countries for the following periods 1830, 1860, 1880, 1900 and 1910.

The geographical sales structure of the various countries can be seen to depend on three variables: the geographical location of the country, the availability of a colonial empire and the degree of industrialization. The size of the country does not seem to matter unduly. The « geographical location » and the « availability

TABLE 5

COMPARISON OF THE GEOGRAPHICAL DESTINATION OF EXPORTS
OF THE EUROPEAN COUNTRIES IN 1909-1911
(in percentages of total exports)

	Europe	North America	South America	Asia	Africa	Oceania
Austria-Hungary	86.7	3.2	1.5	6.3	2.1	0.1
Belgium	81.9	4.2	5.9	5.1	2.3	0.7
Bulgaria *	63.8	1.1	0.7	34.1	0.3	—
Denmark	97.6	1.4	0.4	0.3	0.2	0.1
Finland	98.0	—	0.1	—	2.0	—
France	69.8	7.4	6.9	3.5	12.3	0.1
Germany	74.0	9.0	7.8	5.9	2.3	1.0
Greece	78.3	7.6	2.0	4.0	8.0	—
Italy	65.8	13.3	11.6	4.4	4.3	0.4
Netherlands *	88.8	3.7	0.7	5.5	1.0	0.3
Norway	80.8	8.5	4.3	1.9	1.4	3.0
Portugal	59.8	3.0	18.7	2.2	16.3	—
Romania *	92.0	0.4	1.6	5.0	0.9	—
Russia *	87.6	0.8	2.6	8.3	0.6	—
Serbia *	78.0	1.0	0.5	19.5	0.5	—
Spain	70.6	6.5	18.2	1.4	3.2	0.1
Sweden	86.9	5.2	1.3	2.6	2.7	1.4
Switzerland	74.8	14.1	4.9	4.1	1.1	1.0
United Kingdom	35.2	11.6	12.6	24.5	7.4	8.6
<i>Europe</i>	67.9	7.6	7.5	9.8	4.8	2.4

* Data containing some estimates or figures with a greater margin of error.

Sources: Our calculations; see text and methodological appendix.

Note: The degree of rounding off of the figures does not imply a corresponding low margin of error.

of a colonial empire» are variables with obvious consequences. The «degree of industrialisation» acts to diversify exports. In other words, the more industrialized a country is, the more geographically diversified its exports would be, whereas, on the contrary, a non-industrialized country, even though developed, sells mostly to Europe as a rule, and these sales are generally to the United Kingdom. This is the case especially for small countries with economies which are complementary to the British economy, such as Denmark and Norway.³⁰ A country such as Portugal, in spite of its economy being complementary to the British economy, has a diversified geographical structure because of its relatively large colonial empire and its geographical location. The structure of these three variables tends towards diversification in the case of France which, along with Italy, is one of the major continental European countries with a diversified geographical structure. For Italy (and various other countries), yet another important variable comes into play and that is the presence of immigrants in the countries of new settlement overseas. The high percentage of sales to the United States can be explained by this variable which exerts its influence both directly and indirectly. Its influence is directly exerted through the large scale consumption of products from the mother country and indirectly, through the greater possibility of establishing trade links, because a segment of the population is native to the exporter country.

There is another variable which concerns certain newly formed countries in Europe where trade with the country of which they were previously a part is important. This explains the volume of exports from European countries which were formerly part of the Ottoman Empire, to Asia.

On the whole, the evolution of the geographical export structure of the various countries (see Table 6) is homogeneous. The departures from the average concern mostly those countries which lost part of their colonial empire in the 19th century, viz. Spain and Portugal. In these cases, the relative share of trade with the

³⁰ However, this is as valid for a large non-industrialized country such as Russia of 1910 which, because of its geographical location, had a relatively high proportion of sales to Asia.

Geographical Structure and Trade Balance of European Foreign Trade

TABLE 6

EVOLUTION OF THE GEOGRAPHICAL DESTINATION OF EXPORTS
OF SELECTED EUROPEAN COUNTRIES, 1830-1910
(in percentages of total exports)

		Europe	North America	South America	Asia	Africa	Oceania
Belgium	1830 *	94.5	1.5	2.0	1.5	0.5	—
	1860	92.4	2.1	4.0	1.3	0.2	—
	1880	92.9	2.8	3.0	1.0	0.2	—
	1900	86.2	4.9	2.5	3.8	2.0	0.6
	1910	81.9	4.2	5.9	5.1	2.3	0.7
France	1830	59.8	17.8	16.8	1.1	4.5	—
	1860	65.1	10.2	12.0	2.4	10.1	—
	1880	71.7	9.2	10.2	2.1	6.6	0.2
	1900	73.7	6.4	5.4	3.8	10.4	0.4
	1910	69.8	7.4	6.9	3.5	12.3	0.1
Germany	1860 *	88.3	7.0	2.6	2.0	0.1	—
	1880 *	84.6	9.0	3.1	2.9	0.3	0.1
	1900	78.3	9.3	4.8	5.0	1.6	1.1
	1910	74.0	9.0	7.8	5.9	2.3	1.0
Italy	1860 *	93.7	1.3	1.9	1.1	2.1	—
	1880	89.1	5.4	2.4	1.4	1.7	—
	1900	76.9	9.5	7.2	2.7	3.4	0.4
	1910	65.8	13.3	11.6	4.4	4.3	0.4
Russia	1880 *	95.2	0.3	0.5	3.9	0.2	—
	1900 *	84.2	0.7	4.5	8.1	1.9	0.5
	1910 *	87.3	0.8	2.6	8.3	0.6	0.4
Spain	1860	61.2	7.0	27.8	1.8	2.2	—
	1880	77.3	3.5	16.9	1.4	0.8	—
	1900	81.7	2.5	11.8	2.3	1.6	0.1
	1910	70.6	6.5	18.2	1.4	3.2	0.1
Switzerland	1880 *	80.7	11.0	2.6	4.8	0.5	0.4
	1900	79.5	11.7	2.6	4.8	1.0	0.5
	1910	74.8	14.1	4.9	4.1	1.1	1.0
United Kingdom	1830	36.2	18.4	19.0	20.0	3.2	3.2
	1860	34.3	16.6	12.0	25.7	3.2	8.2
	1880	35.7	15.9	10.2	25.5	4.3	8.5
	1900	39.1	9.7	9.3	25.2	7.5	9.3
	1910	35.2	11.6	12.6	24.5	7.4	8.6

* Data containing some estimates or figures with a greater margin of error.

Sources: Our calculations; see text and methodological appendix.

Note: The degree of rounding off of the figures does not imply a corresponding low margin of error.

rest of Europe increased considerably. Another difference applies to the United Kingdom where, as we have seen, the geographical diversification of trade between 1880 and 1910 was markedly less than in the other European countries.

Taking into account the considerable changes caused by the fact that a large segment of Europe converted to a planned economic system, we have calculated the geographical structure of the foreign trade of the geographical unit which we term « Western Europe » (for the geographical definition, see F 3). The data is to be found in the statistical appendix: Table 18 for exports and Table 19 for imports.

B) GEOGRAPHICAL IMPORT STRUCTURE.

In view of the larger margin of error in the data on the geographical origin of imports (see introduction and methodological appendix), this part will be much shorter than the preceding one. Moreover, we will centre our analysis around the 19th century and, in certain cases, we will carry the series only through to 1938.³¹ We will first deal with the whole of Europe and then proceed to a rapid data analysis.

B1) *Geographical import structure for the whole of Europe.*

If we compare Table 7 with Table 1 — which supplies the same data for exports — it will be seen that the relative proportion of inter-regional trade is small. During the 19th century, imports from Europe represented, on an average, 63% of total imports, as compared to 70% of exports. This is particularly due (as we will see in the next part) to the deficit in trade with North America.

Where the main phases are concerned, the situation is very similar to that of exports. Thus, we will restrict ourselves to

³¹ Paradoxical as this may seem, post World War II data lend themselves much less to a reconstruction of the import structure than inter-war data.

TABLE 7

GEOGRAPHICAL ORIGIN OF EUROPEAN IMPORTS 1930-1910
(in millions of current dollars and percentages; three years annual average;
except post 1910 data)

	Europe	North America	South America	Asia	Africa	Oceania	Total
<i>In value:</i>							
1830	(445)	(70)	(85)	(90)	(20)	(2)	(700)
1850	804	171	106	159	30	18	1,288
1860	1,447	338	186	287	76	40	2,373
1870	2,628	404	293	358	99	75	3,857
1880	3,288	825	307	411	137	110	5,078
1890	3,603	805	342	507	168	140	5,566
1900	4,194	1,272	446	596	217	188	6,913
1910	6,274	1,462	863	1,042	469	352	10,462
1928	10,894	3,197	1,991	1,698	1,059	668	19,507
1938	7,362	2,038	1,302	1,430	996	705	13,833
1953 *	20,830	3,840	2,560	4,060	3,560	1,540	36,390
1970 *	124,130	17,800	6,750	13,060	10,440	1,780	173,960
<i>In % of total:</i>							
1830	(63.0)	(10.0)	(12.0)	(12.5)	(2.5)	(0.5)	(100.0)
1850	62.4	13.3	8.2	12.3	2.3	1.4	100.0
1860	61.0	14.3	7.8	12.1	3.2	1.7	100.0
1870	68.1	10.5	7.6	9.3	2.6	1.9	100.0
1880	64.7	16.2	6.1	8.1	2.7	2.2	100.0
1890	64.7	14.5	6.1	9.1	3.0	2.5	100.0
1900	60.7	18.4	6.5	8.6	3.1	2.7	100.0
1910	60.0	14.0	8.2	10.0	4.5	3.4	100.0
1928	55.8	16.4	10.2	8.7	5.4	3.4	100.0
1938	53.2	14.7	9.4	10.3	7.2	5.1	100.0
1953 *	57.2	10.6	7.0	11.2	9.8	4.2	100.0
1970 *	71.4	10.2	3.9	7.5	6.0	1.0	100.0

* Not strictly comparable: derived from trade network based on destination and origin of exports (in f.o.b. values).

Sources: 1830-1910: our calculations; see text and methodological appendix.

1928 and 1938: derived from « Le réseau du commerce mondial », Société des Nations, Geneva 1942, annexe III.

1953: derived from « Handbook of International Trade Statistics », UNCTAD (mimeo), Geneva 1964, and national statistics.

1970: derived from « Yearbook of International Trade Statistics 1970-1971 », New York 1973.

Note: The degree of rounding off of the figures does not imply a corresponding low margin of error.

analysing certain significant economic trends. North America, during the whole of the 19th century (and the 20th century as well), was Europe's chief supplier. During the 1810-1850/60

period, the greater part of European imports from North America was made up of raw cotton from the United States. From the second half of the 19th century, it was replaced by cereals. The liberalization of customs policies in Europe led, virtually everywhere, to the total elimination of customs duty on food products. Added to the drop in freight costs, this led to an unexpected flooding of European markets with cereals.³² The 1879-1892 return to protectionism in Western Europe, which at first took the form of agricultural protectionism, checked this evolution, though it did not modify it to any great extent. The volume of these imports led, as we will see in the next part, to a very serious European trade deficit.

Latin America's considerable loss of importance as a source of imports between 1830 and 1880, must be chiefly connected with the competition that beet sugar represented for cane sugar. Cane sugar accounted for some 60-70% of imports from Latin America.³³ However, in 1870, world beet sugar production — which was practically non-existent around 1810 — represented a greater volume than that of cane sugar around 1810. South America, which supplied 11-13% of total European imports at around the start of the 19th century, supplied only 6% by 1880. After 1880, the reversal of the trend was due to the purchase of agricultural products from the temperate zones (especially cereals from Argentina). Around 1910, sugar accounted for 20% of the imports from Latin America. The second World War reinforced the shift of Latin American trade towards the United States and as a result, Latin America's role as a European supplier rapidly shrank. In 1970, only 4% of European imports came from Latin America, the lowest figure since 1830 and probably since the beginning of the 17th century.

³² In the United States, wheat and corn exports (as well as wheat flour and corn meal) which were less than 0.2 millions tons per annum between 1840 and 1859, reached 1.4 millions tons by 1869/71 and 7.1 millions by 1879/81 i.e. for the latter period 2.9 kgs (6.38 lbs) per annum per capita in Europe (excluding Russia). See our study entitled: *Commerce extérieur et développement économique de l'Europe au XIX^e siècle*, to be published.

³³ An approximate figure based on the 'product by product' structure of the exports of the main countries in South America.

From 1880, the relative share of Africa and Oceania increased rapidly. These two regions — which around 1870 supplied 4.5% of European imports — supplied around 8% by 1910 and over 12% in 1938. However, after the second World War and particularly in recent years, Oceania's share has dropped considerably, back, in fact, to the level of the 1840's.³⁴

TABLE 8
EUROPEAN IMPORTS BY ECONOMIC REGIONS 1830-1938
(in percentages of total imports)

	Developed countries			Third World countries
	Europe	Others	Total	
1830	(63.0)	(11.0)	(75.0)	(25.0)
1850	62.4	14.9	77.4	22.6
1860	61.0	16.4	77.3	22.7
1870	68.1	13.0	81.1	18.9
1880	64.7	19.4	84.2	15.8
1890	64.7	18.1	82.9	17.1
1900	60.7	22.3	83.0	17.0
1910	60.0	19.0	79.0	21.0
1928	55.8	21.0	76.9	23.1
1938	53.2	21.4	74.6	25.4
1953	57.2	17.1	74.4	25.6
1960	71.3	13.8	85.2	14.8

Sources: See table 7.

Note: The degree of rounding off of the figures does not imply a corresponding low margin of error.

Table 8 shows the evolution in the origin of European imports according to major economic regions. Note, as in the case of exports, the high degree of stability and the considerable volume of European imports from developed countries. Between 1830 and 1970, an average of 80% of imports originated in that region.

As regards imports from the Third World, the period between 1830 and 1970 can be divided into three phases. The first from 1830 to 1880 was characterized by a rapid decline in the relative

³⁴ Note that this regression is not solely a result of a reorientation of Oceania's geographical sales structure, but also of a fallback in this region's relative share of world trade. Oceania which, in 1953, accounted for 2.6% of world exports, accounted for only 1.8% in 1970.

volume of European imports from this region. From 1880 to 1938, however, there was a reversal of this trend. Imports from temperate countries of Latin America must be taken into account, however, since they distort the curve by their rapid increase. Excluding the imports from Argentina, Chile and Uruguay from the total of imports from the Third World, the share of the latter in total European imports underwent the following evolution:

1830	24.0%
1860	21.1%
1880	13.8%
1900	13.8%
1910	16.9%
1928	16.6%
1938	22.1%

Between 1880 and 1910, the volume of Europe's imports from temperate overseas countries (North America, Oceania, South Africa, and the temperate zones of South America) was much greater than that of imports from tropical and semi-tropical countries: 22% of total imports for temperate countries and 15% for tropical countries. Thus, on the whole, the supplier role of the Third World in the 19th century was relatively limited. At this point, it is worth pointing out that imports from the Third World were mainly composed of agricultural, and even more particularly, of food products. These agricultural products probably accounted for some 80% of European imports from the Third World around 1913,³⁵ and probably more around the mid-19th century. Minerals and metals — which have represented an increasing proportion of Third World sales ever since the last World War, were as yet

³⁵ By adjusting the data given by Yates to exclude Japan and South Africa from the « under-developed » continents, we obtained the following composition for the total exports of the Third World in 1913:

Agricultural food products	53%
Agricultural commodities	26%
Mineral ore, metals, raw fertilizers	11%
Manufactured goods	7%

Sources: P. L. YATES, *Forty Years of Foreign Trade*, London 1959.

quite marginal around 1913.³⁶ These products then accounted for only 11% of the total Third World exports as compared to 40% in 1970.

Lastly, the third phase (if we take the analysis up to 1973) started around 1951-53 and was characterized by a rapid regression in the relative importance of the Third World among the Europe's import sources. In 1970, only some 15% of total imports came from the Third World, as compared to 26% around 1953. The 1970 figure is surely the lowest since 1830 and most likely since the beginning of the 17th century. This decline in the relative volume of imports from the Third World must be considered together with, on the one hand the rapid increase in inter-European trade (see preceding part) and on the other hand, the drop in commodity prices especially between 1950-52 and 1960-62. It is difficult to say whether the recent rise in commodity prices — which has already affected the evolution of the import structure (1973-1974) — marked the dawn of a new phase. It would be hazardous to try and predict the future evolution of prices.

B2) Geographical import structure of the United Kingdom and continental Europe.

In order to be as brief as possible, we will restrict ourselves here to a comparison of data on the geographical import structure of the United Kingdom and continental Europe. These data can be found in Table 9. Europe's geographical import structure, as its export structure, was strongly influenced by the import structure of the United Kingdom, which is quite different from that of continental Europe.

³⁶ The following shows the share of under-developed countries (excluding China) in the world production of certain types of mineral ore:

	1913	1928	1948	1960	1970
Iron ore	3%	7%	8%	29%	39%
Bauxite	0.4%	21%	61%	68%	59%
Crude petroleum	15%	25%	36%	55%	67%

Sources: Derived from P. BATROCH, *The Economic Development of the Third World since 1900*, London 1973.

TABLE 9

COMPARISON OF THE GEOGRAPHICAL ORIGIN OF IMPORTS OF EUROPE,
UNITED KINGDOM AND CONTINENTAL EUROPE 1860-1938
(in percentages of total imports; three years annual average; except 1938)

	Europe	North America	South America	Asia	Africa	Oceania
1860:						
Europe	61.0	14.3	7.8	12.1	3.2	1.7
United Kingdom	31.0	26.7	10.1	23.2	4.5	4.5
Continental Europe	77.5	7.4	6.6	6.0	2.5	0.1
1880:						
Europe	64.7	16.2	6.1	8.1	2.7	2.2
United Kingdom	41.4	30.9	6.1	12.0	3.7	5.9
Continental Europe	75.5	9.5	6.0	6.3	2.2	0.4
1910:						
Europe	60.0	14.0	8.2	10.0	4.5	3.4
United Kingdom	45.1	23.8	9.1	10.3	4.8	6.9
Continental Europe	65.2	10.5	8.0	9.8	4.4	2.1
1938:						
Europe	53.2	14.7	9.4	10.3	7.2	5.1
United Kingdom	43.1	21.8	11.6	12.8	6.8	12.9
Continental Europe	61.5	11.7	8.5	9.3	7.4	1.7

Sources: Our calculations; see text and methodological appendix.

Note: The degree of rounding off of the figures does not imply a corresponding low margin of error.

As in the case of its exports, the imports of continental Europe are much less geographically diversified than the imports of Europe as a whole. However, the difference is slighter. Note that from the end of World War I, the relative share of Africa in the imports of continental Europe has been greater than that of the United Kingdom. The reader will find tables on the evolution of the geographical import structure of continental Europe (Table 17) and of Western Europe (Table 19) in the statistical appendix.

C) TRADE BALANCE.

This part will comprise three sections. First we will present and analyse data on the foreign trade balance for the whole of Europe. In section C 2 we will briefly consider the differences and the evolution in the position of the trade balance of the various

European countries. Finally, in section C3, we will present and analyse data on the evolution of the trade balance of Europe in its trade with the various regions.³⁷

C1) Trade balance of Europe.

The unreliability of pre-1830 data does not allow any clear conclusion to be drawn about the European trade balance. During that period, the trade balance was generally adverse for the United Kingdom but favourable for France (at any rate from 1820 and also between 1805-10). Taking into account the margin of error in the figures, it can be considered that around 1830 the European trade balance was in relative equilibrium with a tendency toward a slight deficit (see Table 10). Data, especially on imports,³⁸ were still very unreliable until 1860, and this factor must be taken into account when interpreting the various data.

From the 1830's until the 1880's there was a rapid and more or less regular aggravation of the trade deficit which for 1880 exceeded 20% of imports.

After having slightly regressed, the deficit in European foreign trade in merchandise once again exceeded 20% in 1900, then fell below 16% in 1913. After the first World War, the disequilibrium of the European trade balance was aggravated and the deficit was at its maximum during the crisis of the 1930's. On the other hand, after the second World War trade was more balanced and the deficit fell back to its relative level of the first half of the 19th century. In 1970 the deficit was only 8% of imports and in 1972 only 6.1%.³⁹

³⁷ The elements collected for this study obviously would enable us also to examine the problem of the trade balance according to the geographical regions of the various European countries. However, such an analysis would take us way beyond the limits of this type of article. Thus we will only examine the situation of continental Europe.

³⁸ There are two reasons for this. Firstly, as a rule, the risk of misrepresentation is greater from the point of view of imports than from that of exports. Secondly, in our programme of research we mainly stressed exports which leads us to allow a greater margin of error for imports and for pre-1860 data in particular.

³⁹ In Western Europe (where the import deficit before adjustment was 5.1% in 1972) this deficit rose to 6.8% in 1973 because of the rise in commodity prices and to 13.0% in the first six months of 1974 as compared with 7.0% for the first six months of 1973.

TABLE 10

EUROPEAN TRADE BALANCE 1830-1972

(in millions of current dollars; three-year annual average; except period 1913-1972)

	Exports (f.o.b.)	Imports (c.i.f.)	Trade balance	
			in value	in % of imports
1830	645	(700)	(- 55)	(- 7.9)
1840	870	(940)	(- 70)	(- 7.4)
1850	1,143	1,250	(- 107)	(- 8.6)
1860	2,104	2,374	- 270	-11.4
1870	3,293	3,857	- 564	-14.6
1880	4,051	5,078	- 1,027	-20.2
1890	4,626	5,566	- 940	-16.9
1900	5,483	6,912	- 1,429	-20.7
1910	8,646	10,462	- 1,816	-17.4
1913	10,550	12,490	- 1,940	-15.5
1928	15,460	19,460	- 4,000	-20.6
1938	10,620	13,830	- 3,210	-23.2
1953	34,930	38,790	- 3,860	-10.0
1960	64,630	70,820	- 6,190	- 8.7
1970	169,080	184,780	-15,700	- 8.5
1972	229,100	243,960	-14,860	- 6.1

Sources: 1800-1910: our calculations; see text and methodological appendix.

1928 and 1938: derived from « Le réseau du commerce mondial », Société des Nations, Geneva 1942, annexe III.

1953 to 1972: « International Financial Statistics », Washington (but corrected for Eastern European Countries reporting imports in f.o.b. figures).

Note: For pre-1928 data, the degree of rounding off of the figures does not imply a corresponding low margin of error.

The aggravation of the trade balance deficit during the 19th century is very important; the more so because over this period transport costs dropped considerably. Thus, since imports generally include these costs while exports do not, the real trade deficit grew more rapidly. This fact prompted us to try and estimate the evolution of the real or adjusted trade balance, by excluding transport and other additional costs. This adjustment is very approximate (see methodological appendix) but one which, nevertheless, provides a more real average for the evolution of the trade deficit. The results of these estimates are given in Table 11.

With this adjustment, it can be seen that, in Europe's adjusted trade balance, an import surplus of some 10-18% around 1830 was gradually replaced by a 12-13% import deficit around 1900. Between 1900 and 1970 this trend was reversed and the deficit was quite slight by the end of World War II: only 2-3%, becoming

TABLE 11

CORRECTED * TRADE BALANCE OF EUROPEAN TRADE 1830-1973
(in millions of current dollars)

	Exports (f.o.b.)	Imports (f.o.b.)	Trade balance (corrected)	
			in value	in % of imports
1830	650	(570/ 590)	(+100/+ 60)	(+17.5/+10.2)
1840	870	(750/ 780)	(+120/+ 90)	(+16.0/+11.5)
1850	1,140	(1,070/ 1,110)	(+ 70/+ 30)	(+ 6.5/+ 2.7)
1860	2,100	2,020/ 2,060	+ 80/+ 40	+ 4.0/+ 2.0
1870	3,290	3,320/ 3,390	- 30/- 100	- 0.9/- 2.9
1880	4,050	4,420/ 4,520	-370/- 470	- 8.4/-10.4
1890	4,630	4,950/ 5,010	-320/- 380	- 6.5/- 7.6
1900	5,480	6,220/ 6,290	-740/- 810	-11.9/-12.9
1910	8,646	9,520/ 9,625	-874/- 925	- 9.2/- 9.6
1913	10,550	11,490/11,620	-940/-1,070	- 8.2/- 9.2
1928	15,460	17,900	-2,440	-13.6
1938	10,620	12,380	-1,760	-14.2
1953	34,930	35,840	- 910	- 2.5
1960	64,630	66,710	-2,080	- 3.1
1970	169,080	175,540	-6,460	- 3.7
1972	229,100	231,760	-2,660	- 1.1

* By excluding transports and others costs from imports (see appendix).

Sources: See table 10 and text.

Note: For pre 1928 data, the degree of rounding off of the figures does not imply a corresponding low margin of error.

almost non-existent by 1972. After 1973 there was a new deficit because of the rise in the price of commodities.⁴⁰ This phenomenon has become more marked in 1974 with the sharp increase in the price of petroleum products. However it is obviously much too early to speak of a new trend.

⁴⁰ Note, however, that the acceleration of the rise in price occurred earlier for exports of manufactured goods than for commodities. The following shows the recent evolution of the export price indices for world trade (basis 1963=100):

	Primary Commodities	Manufactured Goods
1969	103	110
1970	108	117
1971	115	124
1972	130	134
1973	188	156
1974 (6 months)	291	175

Sources: « Monthly Bulletin of Statistics » (United Nations), New York, December 1974.

C2) Trade balance of the European countries.

The deterioration of Europe's trade balance during the 19th century applies individually to the majority of the European countries. The outstanding exceptions are the United Kingdom — where the deficit remained relatively constant — and Spain — where a very serious deficit was replaced by a very large surplus.

TABLE 12

TRADE BALANCE OF THE EUROPEAN COUNTRIES 1860-1910
(in millions of current dollars and percentages)

	1860		1890		1910	
	in value	in % of imports	in value	in % of imports	in value	in % of imports
Austria-Hungary	+ 23.7	+23.3	+ 64.6	+27.6	- 94.3	-16.3
Belgium	- 12.2	-12.4	- 39.6	-12.2	- 173.9	-21.7
Bulgaria	—	—	- 1.1	- 7.1	- 7.0	-20.2
Denmark	- 24.4	-69.7	- 23.8	-31.6	- 26.5	-16.8
Finland	- 3.9	-46.4	- 7.6	-28.7	- 22.1	-28.7
France	+ 31.5	+ 8.2	-160.3	-18.4	- 221.6	-16.0
Germany	+ 15.0	+ 4.5	-170.2	-17.4	- 397.6	-18.4
Greece	- 3.7	-43.5	- 11.3	-44.7	- 5.6	-18.4
Italy	- 50.0	-31.2	- 72.2	-29.2	- 231.2	-36.9
Netherland	- 8.0	-19.0	- 24.0	-14.0	- 55.0	-13.6
Norway	- 3.0	-17.1	- 20.5	-38.0	- 36.1	-33.8
Portugal	- 9.8	-39.2	- 21.3	-47.1	- 37.0	-50.5
Romania	+ 5.0	+33.3	- 22.0	-29.3	+ 28.5	+32.9
Russia	+ 9.1	+ 8.2	+163.7	+74.5	+ 233.6	+43.4
Serbia	—	—	+ 1.4	+18.9	+ 2.4	+13.6
Spain	- 22.0	-30.6	+ 7.5	+ 5.0	+ 37.1	+24.8
Sweden	- 1.0	- 4.3	- 16.8	-16.8	- 21.7	-12.3
Switzerland	- 10.0	-11.5	- 48.7	-26.6	- 102.7	-31.0
United Kingdom	-206.6	-24.6	-536.9	-30.3	- 685.6	-25.1
Europe	-270.0	-11.4	-940.0	-16.9	-1816.0	-17.4

Sources: Our calculations; see text and methodological appendix.

Note: The degree of rounding off of the figures does not imply a corresponding low margin of error.

Of the countries which during the 19th century generally had a favourable trade balance, all were countries exporting agricultural products. These were Austria-Hungary (at any rate until 1890), Romania, Russia, Spain and Serbia. However this is not a determining factor since a number of other agricultural exporting countries had severe deficits. These were Bulgaria, Denmark, Finland, Italy, Norway and Portugal. Portugal had the largest deficit with

export earnings not covering even half its import expenses around 1910. This heavy deficit was covered mostly by the transfer of wages by Portuguese labour working in Brazil.⁴¹ Sweden can be added to the list of agricultural exporting countries which suffered trade balance deficits, since until 1880-1890 it exported mainly agricultural products. The size of the country does not seem to play a significant role in this aspect of foreign trade. As a whole, the 'country by country' trade balance analysis reveals neither a constant relations nor any significant correlation.

Just as for the geographical structure of trade, the size and divergent evolution of the foreign trade of the United Kingdom strongly influenced Europe's trade balance. This is why we also calculated the evolution of this data for continental Europe (see Table 13).

TABLE 13

TRADE BALANCE OF CONTINENTAL EUROPE 1830 TO 1972
(in millions of current dollars; three years annual average; except for 1913-1972)

	Exports (f.o.b.)	Imports (c.i.f.)	Trade balance	
			in value	in % of imports
1830	(464)	(460)	(+ 4)	(+ 0.9)
1840	618	(650)	(- 32)	(- 4.9)
1850	803	(838)	(- 35)	(- 4.2)
1860	1,469	1,532	- 63	- 4.1
1870	2,299	2,595	- 296	-11.4
1880	3,000	3,476	- 476	-13.7
1890	3,394	3,797	- 403	-10.6
1900	4,126	4,748	- 622	-13.1
1910	6,597	7,728	- 1,131	-14.6
1913	7,995	9,274	- 1,279	-13.8
1928	11,911	14,297	- 2,386	-16.7
1938	8,343	9,672	- 1,329	-13.7
1953	27,480	29,470	- 1,990	- 6.8
1960	54,280	58,110	- 3,830	- 6.6
1970	149,730	163,060	-13,330	- 8.2
1972	204,760	216,100	-11,340	- 5.2

Sources: See table 10.

Note: For pre 1928 data, the degree of rounding off of the figures does not imply a corresponding low margin of error.

⁴¹ See Mr HALPERN PEREIRA, *Livre Câmbio e Desenvolvimento Económico. Portugal na segunda metade do século XIX*, Lisbon 1971, p. 283 onwards.

The trade balance of continental Europe, contrary to that of Europe, was in relative equilibrium till 1860. The adoption of a more liberal policy by practically all countries of continental Europe after 1860 resulted in a rapid increase in the deficit which was checked and kept stable, though large, by the reintroduction of a protectionist policy. Note however, that the deficit of continental Europe was even at that time, relatively smaller than that of Europe as a whole.

C3) Trade balance of Europe according to geographical regions.

The analysis of the trade balance according to geographical regions brings out the major role played by North America (and in particular the United States) in the creation and enlargement of Europe's trade deficit. According to our calculations, there was a deficit in trade between Europe and North America as early as 1830. Furthermore, if we use United States foreign trade data, this deficit would date back to the 1820's, if not earlier. The reason for the growing European deficit until 1850-60 was the increase in United States raw cotton exports. From 1860 onwards the deficit with North America was the equivalent of almost 60% of the total trade deficit of Europe with the rest of the world (see Table 14). There was a slight recovery due to a slackening of raw cotton sales between 1862-72, which in turn was caused by the war of Secession. Then the deficit with North America fluctuated at around 80% of the total European deficit between 1880 and 1900 because of the increased imports of cereals and, in 1900, amounted to \$ 900 million. At around that time, Europe's deficit with North America was the equivalent, in value, of 71% of the imports from that continent. In other words, imports from North America represented two and a half times the amount of exports to that continent. This considerable deficit of Europe vis-à-vis North America was maintained until very recently. Only from 1972-73 did this trade reach equilibrium. It is too early, however, to speak of a new trend.

Geographical Structure and Trade Balance of European Foreign Trade

TABLE 14

EUROPEAN GEOGRAPHICAL TRADE BALANCE 1850-1938
(in millions of current dollars and percentages)

	North America	South America	Asia	Africa	Oceania	Total extra- european trade
<i>Trade balance in value:</i>						
1850	(- 32)	(- 5)	(- 68)	(- 1)	(- 7)	(- 113)
1860	- 144	24	- 77	- 9	+ 13	- 241
1870	- 101	- 69	- 43	- 31	- 18	- 262
1880	- 522	- 4	- 61	- 36	- 18	- 641
1890	- 414	- 10	- 88	- 31	- 9	- 552
1900	- 902	- 154	- 60	+ 25	- 41	- 1,132
1910	- 805	- 206	- 195	- 54	- 140	- 1,400
1928	- 1,977	- 968	- 98	- 30	- 230	- 3,297
1938	- 1,363	- 551	- 368	- 30	- 367	- 2,679
<i>Trade balance in % of imports from those regions:</i>						
1850	(- 18.7)	(- 4.7)	(- 44.6)	(- 3.3)	(- 41.2)	(- 23.3)
1860	- 43.5	- 12.9	- 26.8	- 11.8	+ 32.5	- 26.2
1870	- 25.0	- 23.5	- 12.0	- 31.3	- 24.0	- 21.3
1880	- 63.3	- 1.3	- 14.8	- 26.2	- 16.4	- 37.1
1890	- 51.4	- 2.9	- 17.4	- 18.5	- 6.4	- 28.2
1900	- 70.9	- 34.5	- 10.1	+ 11.5	- 21.8	- 41.6
1910	- 55.1	- 23.9	- 18.7	- 11.5	- 39.8	- 33.6
1928	- 61.2	- 48.6	- 5.8	- 2.8	- 34.4	- 38.3
1938	- 66.9	- 42.3	- 25.7	- 3.0	- 52.1	- 41.4
<i>Trade deficit in % of gross trade deficit* of extra european trade:</i>						
1850	(28.3)	(4.4)	(60.2)	(0.9)	(6.2)	100.0
1860	56.7	9.4	30.3	3.5	—	100.0
1870	38.5	26.3	16.4	11.8	6.9	100.0
1880	81.4	0.6	9.5	5.6	2.8	100.0
1890	75.0	1.8	15.9	5.6	1.6	100.0
1900	78.0	13.3	5.2	—	3.5	100.0
1910	57.5	14.7	13.9	3.9	10.0	100.0
1928	60.0	29.4	3.0	0.9	7.0	100.0
1938	50.9	20.6	13.8	1.1	13.7	100.0

* Gross trade deficit i.e. total of the trade deficit of the various regions without taking into account the trade surplus (if any) of other regions.

Sources: See table 10.

Note: For pre 1928 data, the degree of rounding off of the figures does not imply a corresponding low margin of error.

Trade with South America was characterized by a relatively large, though not persistent, deficit between 1830-1870. The slackening of sugar sales (see preceding section) caused this deficit to disappear almost completely for 1880 and 1890. However, the rapid increase in purchases of Argentinian cereals was accompanied by a large and growing deficit. Trade with Asia, in the 19th and 20 century as a whole was characterized by a gradual though not steady disappearance of the deficit. From the 1960's the deficit appeared once more mainly because of the increase in the sales of petroleum products from the Middle-East. Africa's role in Europe's trade balance was marginal throughout this period. The same applies to Oceania with the exception of the period between 1910 and 1928. Nevertheless it must be noted that trade in gold (and in currency) is not counted in these calculations since we are dealing here, as throughout the study, with special trade or trade in merchandise. If gold were to be taken into account, Europe's deficit vis-à-vis Africa (because of South Africa) and Oceania (because of Australia) would be much greater for the second half of the 19th century.

In view of the peculiar structure of United Kingdom trade, we also calculated the trade balance according to regions for continental Europe. These calculations may be found in Table 15 but they start only from 1870 since, for preceding periods, the margin of error in the data is such as to render the calculations useless. Since the United Kingdom had quite a large deficit in its trade with continental Europe,⁴² it follows that the deficit in continental Europe's trade with the rest of the world was relatively larger than this same deficit for the whole of Europe. The continental European deficit was large, in particular, as regards trade with Asia and Oceania. A large proportion of the exports of these two regions passed through the United Kingdom, either

⁴² The following shows the evolution of this deficit during the 19th century (*in percentage of United Kingdom imports from continental Europe*):

1850	(-19)	1890	-49
1860	-15	1900	-47
1870	-29	1910	-42
1880	-44		

TABLE 15

CONTINENTAL EUROPE'S GEOGRAPHICAL TRADE BALANCE 1870-1938

	North America	South America	Asia	Africa	Oceania	Total extra- european trade
<i>Trade balance in value:</i>						
1870	- 8	- 64	- 69	- 6	- 3	- 150
1880	- 157	- 74	-135	- 22	- 12	- 401
1890	- 99	- 95	-180	- 28	- 16	- 418
1900	- 340	-173	-212	- 8	- 38	- 771
1910	- 393	-226	-418	- 82	-128	-1,246
1928	-1,236	-687	-407	- 71	-200	-2,601
1938	- 669	-289	-231	-109	-113	-1,411
<i>Trade balance in % of imports from those regions:</i>						
1870	- 5.7	-37.1	-46.1	-11.8	-58.0	-29.1
1880	-47.6	-35.4	-61.9	-29.0	-77.2	-47.1
1890	-32.2	-34.8	-60.1	-27.1	-51.5	-41.3
1900	-58.6	-51.1	-52.1	- 5.4	-62.9	-50.2
1910	-48.3	-36.8	-54.9	-24.1	-78.6	-46.4
1928	-59.8	-52.2	-33.8	-10.1	-74.0	-46.8
1938	-59.1	-35.3	-25.8	-15.3	-67.7	-37.9
<i>Trade deficit in % of gross trade deficit* of extra-european trade:</i>						
1870	5.3	42.7	46.0	4.0	2.0	100.0
1880	39.2	18.5	33.7	5.5	3.0	100.0
1890	23.7	22.7	43.1	6.7	3.8	100.0
1900	44.1	22.4	27.5	1.0	4.9	100.0
1910	31.5	18.1	33.5	6.6	10.3	100.0
1928	47.5	26.4	15.6	2.7	7.8	100.0
1938	47.4	20.5	16.4	7.7	8.0	100.0

* Gross trade deficit i.e. total of the trade deficit of the various regions without taking into account the trade surplus (if any) of other regions.

Sources: See table 10.

Note: For pre 1928 data, the degree of rounding off of the figures does not imply a corresponding low margin of error.

directly (as re-exports) or indirectly (on a commodity market or exchange). The position was almost the same for continental European trade with Latin America. However, the deficit in trade with North America was smaller for continental Europe than for

Europe as a whole. Note that the deficit grew rapidly between 1870 and 1880, a period in which United States cereals really began to flood the markets of continental Europe.⁴³

D) SUMMARY.

This article aims at presenting the main results of our calculations on the geographical structure and the trade balance of Europe from 1800 to 1910. The data analysis was voluntarily cut to a minimum. The most important results for the whole of Europe can be found in Tables 1, 7, 10 and 11.

The most significant conclusion to be drawn from an analysis of the geographical structure of European foreign trade would be the preponderance of inter-European trade and trade between developed regions. During the 19th century the relative share of inter-European trade fluctuated slightly at around 70% of exports and 65% of imports. Trade with all developed regions fluctuated around 80% (imports as well as exports). This has meant that trade with what is today called the Third World was relatively marginal, i.e. about 20% of Europe's foreign trade in the 19th century. Therefore, around 1830, less than 1% of the European gross national product was accounted for by exports to the Third World and this figure was below 3% in 1910.

Naturally, these structural elements were not identical for all the countries which formed Europe and they underwent certain changes over the years.

As regards differences between the countries, the one most worthy of note is the very different geographical structure of the foreign trade of the United Kingdom. As early as the mid-19th century, this country's exports to the Third World accounted for 40% of its total exports while exports to Europe for only

⁴³ « By 1875 settlement and farm development (in the U.S.) had so far progressed and the railway net had extended as to pour a veritable flood of American products in European « markets ». E. G. NOURSE, *American Agriculture and the European Market*, New York 1924, p. 19, quoted by W. MALENBAUM, *The World Wheat Economy 1885-1939*, Harvard 1953, p. 154. Also see note 32 on the volume of these exports.

35%. On the contrary, the geographical structure of continental European trade was characterized by an inter-European trade level of about 80% and one of only 10% for exports to the Third World countries. However, even within continental Europe, the geographical structure of trade was far from homogeneous. Generally speaking, this structure seems to be determined by three variables: the geographical location, the availability of a colonial empire and the degree of industrialization. The size of the country does not seem to exert undue influence. The «geographical location» and the «availability of a colonial empire» are variables which have obvious consequences. The «degree of industrialization» acts towards a diversification of exports or, in other words, the more industrialized a country, the more geographically diversified its exports. On the other hand, a non-industrialized country, even though developed, sells more to Europe as a rule and particularly to the United Kingdom. For certain countries another variable comes into play, i.e. the presence of a great number of immigrants which seems to facilitate trade with the mother-country of these immigrants.

As regards the changes which take place over the years, they have been definitely more important over these past 25 years than between 1800 and 1950. There are four main phases from 1800 to today if we take our analysis up to 1972. The first, which began before 1800 and lasted until 1860 — was characterized by a rapid rise in the relative importance of the Third World. This region, which before 1800, probably absorbed some 13% of European sales, absorbed over 20% by 1860. The effective and growing economic colonization of Asia was mainly at the root of this development. During the second phase, covering the years between 1860 and 1880, the relative volume of sales to the Third World suffered a regression. This can be explained by the intensification of inter-European trade because of free-trade policy, and the saturation of certain Third World markets. The third phase, lasting from 1880 to 1952-53, was marked by a rise in the relative volume of exports to the Third World. During the fourth phase which began around 1952-53 and most likely ended in 1972, inter-European trade grew rapidly and trade with the Third World

dropped rapidly. The *relative* share of the Third World in European trade in 1970-72 was the smallest, not only since the beginning of the 19 century, but probably since the beginning of the 17th century.

The European trade balance underwent considerable changes during the 19th and 20th centuries. Note that, in addition to calculating the evolution of the classical trade balance (f.o.b. exports minus c.i.f. imports), we calculated that of the «real» on adjusted trade balance, i.e. f.o.b. exports minus f.o.b. imports excluding transport and other import costs from the value of imports.

Three divergent trends can be distinguished in the evolution of the European trade balance from the 19th century until today. The first phase or trend, which probably started at the beginning of the 19th century and at any rate as of 1830 (when the margin of error is acceptable for the calculation of the trade balance) and lasted until the 1880's, was characterized by a growing deterioration of the trade balance. In real terms (excluding transport) an import surplus of about 11-17% around 1830 gave way around 1880 to an import deficit of around 8-10%. As regards the trade balance prior to adjustment, a 9% deficit deteriorated to one of about 20% (from approximately \$ 65 million to \$ 1000 million); thus in absolute terms a drop from a \$ 70-110 million surplus to a deficit of around \$ 400 million.⁴⁴ The second phase — from the 1880's to the eve of World War II — was characterized by a quasi-stagnation in the relative size of the deficit which fluctuated between 9-12% of imports in real terms, and in pre-adjustment terms 20%. Since the value of exports increased rapidly as of 1880 and especially between 1890 and 1928, in absolute terms, this deficit reached \$ 1000 million for the adjusted balance and \$ 900 million for the gross balance in 1913 (for 1928, 2400 and 4000 million respectively). The third phase, which started around 1952-54 and which ended (it is difficult to say whether temporarily or permanently) in 1972-73, was characterized by a rapid drop in the size of the relative deficit. Excluding transport

⁴⁴ A reminder that here, as throughout this article, we are using current dollars.

costs, this deficit represented only 1% of imports in 1972 (6% before adjustment).

The formation of the large trade balance deficit during the 19th century was mainly due to European trade with the United States, which first sold growing quantities of raw cotton, then cereals, while restricting the expansion of imports of manufactured goods by means of high customs barriers. Around 1900, Europe's purchases from North America were three times the amount of sales to this region and Europe's trade deficit with North America accounted for 80% of Europe's total gross deficit in trade with the rest of the world.

It would be impossible to make a 'region by region' or a 'country by country' analysis of the evolution of the trade balance here in this summary. In conclusion let us just say that, as a rule, in the 19th century, the trade balance was more favourable for countries exporting agricultural products (see Table 12) and, contrary to the present situation, trade with most of the Third World regions resulted in trade deficits for Europe (see Table 14 and 15).

E) STATISTICAL APPENDIX.

In order to lighten the text of the article, four tables on the 19th century evolution of the geographical structure of continental Europe's and Western Europe's foreign trade were referred to this appendix.

TABLE 16

GEOGRAPHICAL DESTINATION
OF CONTINENTAL EUROPE'S EXPORTS 1830-1910
(in millions of current dollars and percentages; three-years annual average)

	Europe	North America	South America	Asia	Africa	Oceania	Total
<i>In value:</i>							
1830	380	31	29	18	6	—	464
1840	505	39	37	24	13	—	618
1850	659	56	45	25	19	—	803
1860	1,205	85	85	46	48	1	1,469
1870	1,934	128	109	80	46	2	2,299
1880	2,549	173	136	83	55	4	2,999
1890	2,798	208	178	120	76	15	3,395
1900	3,359	240	167	197	141	22	4,126
1910	5,145	420	392	347	258	35	6,597
<i>In % of total:</i>							
1830	82.0	6.6	6.3	3.7	1.3	—	100.0
1840	81.8	6.2	6.0	4.0	2.0	—	100.0
1850	82.0	7.0	5.6	3.1	2.4	—	100.0
1860	82.0	5.8	5.8	3.1	3.2	0.1	100.0
1870	84.1	5.6	4.7	3.5	2.0	0.1	100.0
1880	85.0	5.8	4.6	2.8	1.8	0.1	100.0
1890	82.4	6.1	5.2	3.6	2.2	0.4	100.0
1900	81.4	5.8	4.0	4.8	3.4	0.6	100.0
1910	78.0	6.4	5.9	5.3	3.9	0.5	100.0

Sources: Our calculations; see text and methodological appendix.

Note: The degree of rounding off of the figures does not imply a corresponding low margin of error. The percentages have been calculated from unrounded figures.

TABLE 17

GEOGRAPHICAL DESTINATION
OF CONTINENTAL EUROPE'S IMPORTS 1850-1910
(in millions of current dollars and percentages; three-years annual average)

	Europe	North America	South America	Asia	Africa	Oceania	Total
<i>In value:</i>							
1850	663	61	51	49	13	1	838
1860	1,186	113	101	92	38	2	1,532
1870	2,081	136	173	149	52	5	2,595
1880	2,625	330	210	219	77	15	3,476
1890	2,785	307	272	299	103	30	3,796
1900	3,210	580	340	410	149	60	4,749
1910	5,039	812	615	761	338	162	7,727
<i>In % of total:</i>							
1850	79.1	7.3	6.0	5.9	1.6	0.1	100.0
1860	77.4	7.4	6.6	6.0	2.5	0.1	100.0
1870	80.2	5.2	6.7	5.7	2.0	0.2	100.0
1880	75.5	9.5	6.0	6.3	2.2	0.4	100.0
1890	73.4	8.1	7.2	7.9	2.7	0.8	100.0
1900	67.6	12.2	7.2	8.6	3.1	1.3	100.0
1910	65.2	10.5	8.0	9.8	4.4	2.1	100.0

Sources: Our calculations; see text and methodological appendix.

Note: The degree of rounding off of the figures does not imply a corresponding low margin of error. The percentages have been calculated from unrounded figures.

TABLE 18

GEOGRAPHICAL DESTINATION
OF WESTERN EUROPE'S EXPORTS 1830-1910
(in millions of current dollars and percentages; three-years annual average)

	Europe	North America	South America	Asia	Africa	Oceania	Total
<i>In value:</i>							
1830	345	74	49	34	11	2	515
1840	440	82	84	66	21	8	701
1850	579	134	99	80	29	10	931
1860	1,076	181	157	193	67	53	1,728
1870	1,749	282	214	283	67	56	2,651
1880	2,145	309	231	321	100	92	3,198
1890	2,331	347	309	372	131	127	3,616
1900	2,908	323	254	459	224	140	4,307
1910	4,217	574	567	701	381	202	6,642

Continued: TABLE 18 - GEOGRAPHICAL DESTINATION OF WESTERN EUROPE'S EXPORTS 1830-1910

	Europe	North America	South America	Asia	Africa	Oceania	Total
<i>In % of total:</i>							
1830	67.1	14.4	9.5	6.6	2.0	0.3	100.0
1840	62.8	11.8	11.9	9.4	2.9	1.1	100.0
1850	62.2	14.4	10.6	8.6	3.2	1.0	100.0
1860	62.3	10.5	9.1	11.2	3.9	3.1	100.0
1870	66.0	10.6	8.1	10.7	2.5	2.1	100.0
1880	67.1	9.7	7.2	10.0	3.1	2.9	100.0
1890	64.5	9.6	8.5	10.3	3.6	3.5	100.0
1900	67.5	7.5	5.9	10.6	5.2	3.3	100.0
1910	63.5	8.6	8.5	10.6	5.7	3.0	100.0

Sources: Our calculations; see text and methodological appendix.

Note: The degree of rounding off of the figures does not imply a corresponding low margin of error. The percentages have been calculated from unrounded figures.

TABLE 19

GEOGRAPHICAL DESTINATION
OF WESTERN EUROPE'S IMPORTS 1850-1910

(in millions of current dollars and percentages; three years annual average)

	Europe	North America	South America	Asia	Africa	Oceania	Total
<i>In value:</i>							
1850	606	152	92	135	27	15	1,028
1860	1,156	323	170	265	74	39	2,028
1870	2,044	375	262	320	95	74	3,170
1880	2,595	771	259	362	128	106	4,221
1890	2,929	732	287	443	155	132	4,678
1900	3,363	1,139	371	489	188	174	5,723
1910	4,948	1,256	723	830	398	324	8,479
<i>In % of total:</i>							
1850	59.0	14.8	9.0	13.1	2.7	1.5	100.0
1860	57.0	15.9	8.4	13.1	3.7	1.9	100.0
1870	64.5	11.8	8.3	10.1	3.0	2.3	100.0
1880	61.5	18.3	6.1	8.6	3.0	2.5	100.0
1890	62.6	15.7	6.1	9.5	3.3	2.8	100.0
1900	58.8	19.9	6.5	8.5	3.3	3.0	100.0
1910	58.4	14.8	8.5	9.8	4.7	3.8	100.0

Sources: Our calculations; see text and methodological appendix.

Note: The degree of rounding off of the figures does not imply a corresponding low margin of error. The percentages have been calculated from unrounded figures.

F) METHODOLOGICAL APPENDIX AND SOURCES.

Below the reader will find methodological indications, as well as a list of the sources used. We have deliberately cut this section down to the essential.

F1) *General remarks on the geographical export and import structure from 1800 to 1910.*

It must be pointed out that, in order to eliminate any possible distortions of the economic situation, data are, in fact, made up of annual averages of the three year period surrounding the year in question. In any case we are dealing with special trade and therefore excluding re-exports. Where these special exports do, in fact, include re-exports, as is the case for the Netherlands, adjustments have been made so as to be as faithful as possible to the concept of special trade.⁴⁵ In cases where foreign trade statistics were given in constant values (notably the case for pre-1850), we have modified the total values by applying the geographical structure derived from pre-adjustment statistics.⁴⁵

The basic sources were of course the foreign trade statistics of each country (see below). For periods when there were no statistics for some countries we extrapolated the structure, basing ourselves on the later known evolution of the country under study, its general economic history and in particular the known evolution of countries having an analogous economic structure.

For many countries and periods, there is a fraction (fortunately a small one: as a rule 1-2%) of trade, the origin and destination of which is unknown or not recorded. In this case, whenever certain indications, as for example if certain countries were completely left out in the distribution, enabled these residuals to be traced to a probable destination or origin, this was done. In other cases we distributed these residuals in proportion to the geographical structure of overall trade, taking into account, however arbitrarily, the probability of trade with European countries being

⁴⁵ See the methodological appendix of our previous article in this journal for further indications.

better accounted for, statistically, than trade with extra-European countries.

There are two biases which we made no attempt to eliminate. One results from the fact that, up until 1904-10, trade statistics according to origin and destination, in most countries, were based on the notion of shipment or destination or even in some cases transshipment instead of final consignment. These biases can be significant in cases where a 'country by country' study of the geographical distribution of trade is being made, in particular trade with certain European countries without sea ports. However, for those cases with which we are concerned, where it is a question of large, well-defined geographical regions and where inter-European trade is treated as a unit, there is almost a superposition of the region of destination or shipment with the region of final consignment.⁴⁶ Moreover, as a rule, this bias affects imports more than exports and this is what caused us to put greater stress on exports.

The second bias which was not eliminated, but which is probably less important than the first is that caused by smuggling. The latter is very difficult to estimate and even more difficult to distribute geographically. It is probable that the bias given by smuggling is, in relative terms, more important at the overall level than at the level of the geographical distribution.

⁴⁶ The following, for example, shows, for the United Kingdom alone (for Europe the margin is smaller), the difference between both trade registration systems in 1905 (*in millions of pounds sterling*):

	Exports		Imports	
	Shipment	Consignment	Shipment	Consignment
Europe	110.3	110.3	246.9	240.3
North America	36.2	36.2	141.8	140.9
South America	37.1	37.0	48.3	52.4
Asia *	93.8	95.8	77.3	78.1
Africa *	25.3	25.3	11.3	11.8
Oceania	23.4	23.4	40.4	40.4

* In this case all the Ottoman Empire is included in Asia.

Sources: Derived from B. R. MITCHELL and P. DEANE, *Abstract of British Historical Statistics*, Cambridge 1962, pp. 317-325.

F2) *Post 1910 data.*

Post 1910 data — which are not of our own calculation — was (nevertheless) recalculated to render it homogeneous and to enable comparison with the different geographical definition used in our study. In other words, 1928 and 1938 League of Nations data were readjusted to exclude Turkey from Europe (as a part of Europe in the basic calculation, but also transferring Europe's trade with European Turkey to Asia). United Nations (and sometimes International Monetary Fund) data from 1953 onwards were readjusted not only for Turkey⁴⁷ but also for trade in the Caribbean region, as well as trade between the two Germanies.

F3) *Geographical definition of the continents and regions.*

Continents:

- *Europe*: the whole of Europe including Russia (including Asian Russia) but excluding the European part of Turkey within the 1913 borders.
- *North America*: United States and Canada.
- *South America*: the whole of America, except North America.
- *Africa* the whole of Africa.
- *Asia* the whole of Asia, excepting Asian Russia but including the European part (1913 territories) of Turkey.
- *Oceania*: the whole of Oceania.

Regions:

- *Other developed countries*: North America, South Africa, Australia, New Zealand and Japan.
- *Developed countries*: Europe plus the other developed countries.
- *Third World or underdeveloped countries*: the world with the exception of the developed countries.

⁴⁷ Note that very recently, as far as trade is concerned, Turkey has been classified under Asia in certain United Nations statistics.

- *Western Europe*: Europe excluding the following countries: Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Rumania and Russia.

It must be pointed out that, for western Europe between 1830 and 1910 — a period during which certain of these countries were either different or non existent — we calculated the aggregate by subtracting the following from the European total: Bulgaria, Rumania, Serbia, 40% of Germany and 80% of Austria-Hungary.⁴⁸

F4) *Changes in the geographical structure of trade as a result of territorial or political modifications brought about directly or indirectly by the two World Wars.*

Our aim is to discover to what extent territorial modifications or changes of political systems affected the geographical structure of European trade. In view of the slimmer margin of error in the export data, this estimate will be based on these flows alone.

The creation of a number of states which did not exist politically before 1919, led to a 2% increase in the relative share of inter-European trade. The creation of trade as a result of trade between new states and the entity of which they were formerly a part, represented 4.3%⁴⁹ of European exports in 1928. If this amount is subtracted from both inter-European trade and total exports, there is a 2% reduction of the relative share of inter-European trade (73.4% instead of 74.9%). However, Russia's change of economic system caused a marked drop in its foreign trade, even if new states are taken into account. In 1913, Russia supplied 7.3% of European exports; in 1928, USSR, Poland, Lithuania, Estonia and Latvia only supplied 3.8% of European exports, in

⁴⁸ The percentages for Germany and Austria-Hungary were calculated by comparing the 1913 population figures of these countries, according to the boundaries of the time, with the population figures for present-day Federal Germany and Austria. The following percentages were obtained: 44.7% for Germany and 87% for Austria-Hungary. We retained slightly lower percentages because, as a rule, the regions which today form part of the Eastern European countries were at that time less developed economically.

⁴⁹ See our previous article on European trade. Note that in note 10 of that article, the third line should read « reciprocal trade between Russia, Austria-Hungary, and the United Kingdom on one... » instead of « reciprocal trade between Russia and the United Kingdom on one... ».

spite of the fact that the total volume of European exports had increased by only 10% in that period. If we compare the effective geographical export structure of the five states in 1928 with that of 1909-11, we can conclude⁵⁰ that, as a result of the USSR change-over to a more closed economy, the relative share of inter-European trade was reduced by 1%. This compensates, to the extent of 50%, for the effect of the creation of new states.

The final effect of the two series of changes brought about by the upheavals of World War I: creation of new states and change of system in USSR, can be found in the second column of Table A.

TABLE A

ESTIMATED EFFECT OF THE TWO POLITICAL MODIFICATIONS
CAUSED BY THE TWO WORLD WARS
ON EUROPEAN GEOGRAPHICAL DESTINATION OF EXPORTS
(in percentages of total exports)

Destination of exports	Modification due to World War I		Modification due to World War II	
	1928 Real situation	1928 Estimated situation if no changes	1960 Real situation	1960 Estimated situation if no changes
Europe	65.51	64.68	65.10	66.11
North America	7.95	7.99	8.03	7.90
South America	6.64	6.93	5.91	5.68
Asia	10.38	10.70	10.25	9.96
Africa	6.68	6.80	8.34	8.03
Oceania	2.84	2.90	2.37	2.33
<i>Total</i>	100.00	100.00	100.00	100.00

Sources: Our estimates; see text.

The post World War II world situation was different from that of the interwar period, mainly as a result of the changeover of the Eastern European countries to a planned economy system. The elimination and creation of states was balanced to a certain extent, especially since trade between both Germanies was quite limited. The results shown in the fourth column of the Table were obtained by carrying out the series of estimates in the manner

⁵⁰ By eliminating the effects of the creation of inter-European trade as a result of the forming of new states which were already taken into account in the above estimate.

described above for the first World War (but also taking into account the diversion of Chinese trade towards these countries because of the change in the Chinese political system). Finally, the post-World War II situation, in fact, was only very slightly modified compared to what it would probably have been if the two wars had not changed boundaries and political systems.

F5) *Estimates of the relative importance of transport costs and other costs included in the value (c.i.f.) of imports.*

In order to appraise the evolution of the trade balance for trade in merchandise, not taking into account transport costs and other costs generally included in the c.i.f. value of imports, we have had to make an estimate of these costs for the period between 1830 and 1970. There are usually two approaches used to make such estimates. The first consists in a comparison of the c.i.f. value of total world imports with the f.o.b. value of total world exports, the difference being, in theory,⁵¹ the sum of transport costs and other connected expenses. The second approach is to calculate for each individual country, its transport and other expenses especially in order to estimate the balance of payments. This renders the data more difficult to use since it is generally only the transport receipts of each country's transport network that are calculated.

The approach which compares world imports and exports cannot go as far back as the 1870's.⁵² The national approach makes

⁵¹ After adjustment, when possible, of data which are not recorded in accordance with the usual methodology (in the United States in particular).

⁵² The following data were used:

For 1953-1972: United Nations and especially I.M.F. data (several issues of « International Financial Statistics »). The latter supplied adjusted data. For the Eastern countries we made the adjustments ourselves.

For 1928-1938, we used adjusted data from the League of Nations (*Le réseau du commerce mondial*, op. cit., pp. 20-21).

For 1876-1913, the data are derived from the League of Nations (*Industrialisation et commerce extérieur*, op. cit., tables VII and VIII of the appendix).

For 1867-1875, data derives from F. X. von NEUMANN SPALLART (*Uebersichten der Weltwirtschaft 1880*, Stuttgart 1881 and subsequent editions). Note the brief synthesis of pre 1914 estimates in *American Shipping Earnings and the Balance of Trade*, in « Federal Reserve Bulletin », April 1921, pp. 400-410, especially p. 403. Also the calculations of R. GIFFEN not used in the above-mentioned article (*The Use of Import and Export Statistics*, in « Journal of the Statistical Society », vol. XLV, June 1882, pp. 181-284) and

it possible to go further back, but data are quite scarce and often unreliable.⁵³ Above all we completed these two series of data with the evolution of freight and insurance rates⁵⁴ and a comparison of the evolution of the value of inter-European imports with that of exports. Theoretically, the difference between European imports

which deal with 1879 alone. Note that for the pre 1870 period, an estimate was made by A.H. IMLAH [*Economic Elements in the Pax Britannica: Studies in British Foreign Trade in the 19th century*, Cambridge (Mass.) 1958, p. 189]. In it, the author used estimates (though these were relatively unreliable until 1850) of total trade to carry out an approximate distribution of exports (f.o.b.) and imports (c.i.f.) for 1800-1840, the difference between these two values being 16%.

The following shows the evolution of the gap between the value of world exports (f.o.b.) and imports (c.i.f.) in percentages of the value (c.i.f.) of imports:

1867-1870	13.3	1911-1913	8.5
1872-1875	14.5	1913	7.6
1876-1880	14.9	1928	8.1
1881-1885	12.2	1938	10.8
1886-1890	11.8	1953	7.8
1891-1895	8.6	1960	6.0
1896-1900	11.4	1970	5.1
1901-1905	13.9	1972	4.9
1906-1910	8.5		

⁵³ In addition to Toutain's calculations (see following note), note the estimates made by A.H. IMLAH (*The Economic Elements in the «Pax Britannica»: Studies in British Foreign Trade in the 19th Century*, Cambridge (Mass.) 1958, for the United Kingdom, United States data (*Historical Statistics of the United States. Colonial Times to 1957*, Washington 1960) especially pp. 562-563 for transport by American ships, and pp. 452-453 for the proportion of American ships. Also see for the United States, the «Federal Reserve Bulletin» article mentioned in preceding note.

⁵⁴ For freight indices we used mainly the article by J.C. TOUTAIN (*Les transports en France de 1830 à 1965*, in «Economies et Sociétés, Cahiers de l'I.S.E.A.», AF 9, September-October 1967) which compiled the major available indices on freight in the 19th century. Moreover, in that article, Toutain calculates, in great detail, the extent to which freight affected French foreign trade. It must be noted, however, that this calculation has a considerable bias as far as pre-1860 data are concerned. Since there is no available general index on freight between 1860-1870, Toutain assumes that freight remained stable during that period. However, that decade was undoubtedly characterized by a severe drop in freight costs. We, in turn, have assumed that, between 1860 and 1870, the evolution was the same as the average of the ten years before and after that period.

The data assembled by TOUTAIN were completed by the freight index of D.C. NORTH, *Ocean Freight Rates and Economic Development 1750-1913*, in «Journal of Economic History», 1958, Vol. XVIII, No. 4, pp. 537-555, and of C.P. KINDLEBERGER [*The Terms of Trade. A European Case Study*, Cambridge (Mass.) 1956, p. 19].

Average insurance rates dropped rapidly. The following shows the evolution of insurance rates for the «Hamburg Company» (per thousand):

1820	17	1860	14
1840	15	1872	12

(M.G. MULHALL, *A Dictionary of Statistics*, London 1898, p. 332).

from within Europe and European exports to Europe, corresponds to transport and other additional costs of inter-European trade. These costs, in relative terms, were probably lower than those of trade with the rest of the world. In view of the problem of adequate sources on the geographical structure of trade (see above), it can be considered that only post-1870 data are valid for use in such a calculation.⁵⁵

When these four series of data were compared (taking into account the fact that the drop in transport costs, mainly between 1840 and 1880, led to an increase in international trade in heavy goods of low specific value) we obtained the final cost percentages. The following, therefore, shows the evolution of the share of transport and additional costs in percentages of the value of c.i.f. imports:

1830	17-20%	1910	8.9%
1840	16-19%	1913	7.8%
1850	14-17%	1928	8.0%
1860	13-15%	1938	10.0%
1870	12-14%	1953	7.6%
1880	11-13%	1960	5.8%
1890	10-11%	1970	5.0%
1900	9-10%	1972	5.0%

F 6) *Margin of error for the data.*

First a reminder that, as a rule, figures with a greater margin of error are given in parentheses. However, it is obvious that the absence of parentheses does not imply the absence of a margin of error. In general, the margin of error is slightly greater for imports

⁵⁵ The following shows the evolution of the difference between the value of inter-European exports and imports (*in percentages of imports*):

1870	11.6	1910	6.9
1880	11.1	1928	7.3
1890	11.0	1938	7.3
1900	7.6		

than for exports, mainly because of the misrepresentation of real origin.

It can be considered that between 1890 and 1910, the margin of error is slight since over 95% of our basic data is derived from statistics that can probably be considered as reliable as contemporary data.⁵⁶ For 1880, there is a greater proportion of extrapolated or estimated data (see item F1): approximately 19% of the European total; but the margin of error is relatively small. For 1860 and 1870, 68% of our data is derived from statistics and the margin of error of the other data is greater. Note, however, that the German figures — included in the extrapolated or estimated data (which make up approximately half of it) — are based on partial estimates which, a priori, are quite valid.⁵⁷ For 1830 to 1850, statistics make up only 52% of the data. As we pointed out in the text, 1800 data can be considered as approximate indications. On the whole, the margin of error is relatively small between 1850 and 1910 and restricted for exports between 1830 and 1840.

F7) Sources.

On the whole, the sources used here were practically the same as those used for our previous study. However, it was very often necessary to use, more systematically, statistical documents or abstracts specialized in foreign trade — since details on the geographical structure of trade to be found in general statistical abstracts and, a fortiori, in retrospective statistical abstracts, were often inadequate.

It would be too lengthy and would serve no purpose to list in extenso the sources used. In fact, for each country concerned, our research has followed the three following phases

1) Where available, historical statistical abstracts.

⁵⁶ Except for the problem of defining origin and destination, which, as we have seen, does not cause any real problem as regards the geographical distribution used here (see also item F1 above).

⁵⁷ Especially G. BONDI, *Deutschlands Aussenhandel 1815-1870*, Berlin (East) 1958.

- 2) Statistical abstract for the periods under consideration (general statistical abstracts and, especially, statistical abstracts of foreign trade).
- 3) Studies on the historical development of foreign trade or on general economic history.

This whole process of data collecting necessitated the consultation of more than 300 volumes or texts representing more than 150 titles.

This systematic research was completed by the use of international sections of certain statistical abstracts, notably those of France and Germany, and of a series of secondary sources, listed below:

Foreign Commerce Yearbook (U. S. Department of Commerce), various years, Washington.

J. R. McCULLOCH, *A Dictionary of Commerce and Commercial Navigation*, London 1844.

Mouvement général du commerce et de la navigation des principaux pays étrangers (« Annales du commerce extérieur », from 1888), Paris.

M. G. MULHALL, *A Dictionary of Statistics* (4th edition), London 1899.

F. X. VON NEUMANN SPALLART, *Uebersichten der Weltwirtschaft* 1880, Stuttgart 1881 and subsequent editions.

Statesman's Year-Book (from 1864 et seq.), London.

Statistical Abstract of Foreign Countries (U. S. Department of Commerce), Washington 1909.

Statistical Abstract for the Principal Foreign Countries (from 1873), London.